

**B. N. Clifford & Associates**  
North Star Community Development Corporation  
1712 East Jefferson Street  
Duluth, MN 55812

Mary Jean Fenske  
Industrial Division, SP-5  
520 Lafayette Road North  
St. Paul, MN 55155  
E-mail: [maryjean.fenske@](mailto:maryjean.fenske@)

Re: PUBLIC NOTICE OF INTENT TO ISSUE  
STATE DISPOSAL SYSTEM (SDS) PERMIT  
MNG300000  
**Ballast Water Discharge General Permit**

Dear Mary Jean:

In response to your requests for comments on the Ballast Water Discharge General Permits; I submit comments as they pertain to the economic impact and/or opportunities that will result by the process. There are three prospective issues within this matter as it stands. (1) The overall environmental objectives may be lost in this approach due to the Great Lakes alliances and the lack of economic impact study. (2) The matter appears to lack depth in understanding the technologies and methodologies that have any merit to consider management of ballast water. (3) Current water quality management and reporting methods are not define in a manner that addresses costs.

In this discussion we do support the general direction and intent of the need to manage ballast water. The problem is that this idea of being "innovative and first in" may not achieve the environmental objectives it seeks. The real concern is how we can achieve the environmental objectives for Minnesota waters while ignoring the alliances forged through out the Great Lakes Region. The actions of unilateral determination, without the greater support of the communities surrounding our Great Lakes treasure does not necessarily create leadership as much as it's potential to cause dissention.

The industry of shipping through out this region is large. In the Twin Ports we currently have 12 to 14 slips that have been abandoned. The cost benefit analysis of the ballast water management in Minnesota creates an unknown financial burden on vessels that are vital to the Duluth economy. If one ship determines to reroute delivery or transport to Duluth the losses may equal 15 to 25 living wage jobs as well as the potential of the additional abandonment of

facilities. This could equate to an estimated economic impact of \$1,164,000 in losses per vessel annually in the Duluth Port. This is a very competitive market place and the analysis of ballast water management, implementation, enforcement and reporting vs. its economic impact has not been presented as it needs to be.

The end result is that the Minnesota ballast permit process may create financial reverberations in the shipping industry in Duluth and may have unintentional impacts that may not be easily remedied. At the same time that this economic impact effect Duluth, the environmental objectives are not met due to an alternative of simple rerouting of shipments and ballast water discharging in other areas that are “in sink” with the technologies and methodologies currently available.

The review of technologies and methodologies of ballast water management have been researched and experimented over the last 15 years. Clearly the company or companies that achieve solutions will enjoy a captive economic opportunity. The basic problem in Minnesota is that the design of the Great Lakes vessels are such that they are cargo barges more than deep sea vessels. To retrofit a chemical or mechanical solution is not as easy and clearly is not cost effective for vessels that are near their retirement.

The lack of genuine presentation of technological solutions for ballast water management and the actions of this permitting program may create high potential for a contested case hearing according to the criteria in Minn. R. 7000. The missions of the Minnesota Pollution Control Agency as well as the Environmental Protection Agency are to assess the cost benefit analysis of any actions they take. Through out the entire process of this action it appears that this step has not been accomplished. The main reason, of course, is in the reality of the lack of technological achievement towards any reasonable solution. This presents an understanding to the concept of Minnesota “putting the cart before the horse”.

Finally, in considering the mater of current ballast water quality management and reporting methods being cost effective and available. These methods are not well enough defined in addressing ease or costs of operation or enforcement. This is a very interesting issue. It is one that has good potential for economic opportunity. It is also necessary that we understand this well enough to address how it will work or not.

The laboratory operations for testing and reporting water qualities on a vessel can mean as many as 12 to 14 samples per vessel per entry and departure in Minnesota Waters. When one studies the shipping traffic and how many ballast tanks a vessel the management costs begin to take form. The idea that this job creation issue may benefit Minnesota appears to have little effect or concern on the whole process.

Perhaps each vessels ballast tank will require a water quality sample and correlating test at a certified testing facility with an estimated minimum charge of \$125 to \$375 lab fee per sample. The management costs of the chain of custody and transportation are an additional \$25 to \$45 per sample and finally any digital reporting and validation fees may be \$15 to \$35 per lab test. This creates an ongoing burden of costs per ballast tank that may be too prohibitive or not enough to warrant the investment to create the needed support services.

The vessel administration of all the management issues of ballast water is additional work and costs on the vessel. It may cost up to \$75 per foot for the software application as well as an annual maintenance fee of \$15 to \$20 per foot. This does not include the technology required to meet the standards set by the permitting process. This type of investment must yield a cost benefit to the vessel owners and operators.

This means that a 1,000 Laker operating in Minnesota waters would have a \$75,000 initial investment for software management costs, with an annual maintenance cost of \$17,500. If the vessel comes to Duluth or Two Harbors 12 to 15 times a season and has 12 to 14 ballast tanks; the laboratory and reporting costs could be an estimated \$3,960 to \$8,680 per voyage with annual costs of \$51,480 to \$112,840 plus the additional cost of the ballast compliance requirements.

These comments are based on the attempt to address the overall economic impact and the opportunities as well as potential unintended consequences of the ballast water management issue. It would be our recommendation that a task force be formed to address the means and methods that are going to be required to assist the vessels with cost effective management and methodologies of this issue. It is important that the enforcement and reporting methods become better defined to allow for standard operating procedures to be clear and accepted by all parties involved.

Sincerely,

Bradley N. Clifford  
Principal  
B. N. Clifford & Associates

Executive Director  
North Star Community Development Corporation